



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE NORTHWARD RANGE OF THE ALLEN HUMMINGBIRD

By TRACY I. STORER

(Contribution from the Museum of Vertebrate Zoology of the University of California)

THE ALLEN and Rufous Hummingbirds (*Selasphorus alleni* and *S. rufus*) have been the subject of confusion and controversy ever since the former was described in 1877. The difficulty has been due in part to the close similarity between the two birds and in part to the fact that one species (*rufus*) passes northward in its spring migration through the range of the other (*alleni*) while the latter is nesting.

The first source of confusion was the proper geographic application of the specific names *rufus* and *alleni*, but this is no longer a matter of dispute, it having been clearly shown that the name *alleni* belongs to the more southern bird. (See Henshaw, Bull. Nuttall Orn. Club, II, 1877, pp. 53-58; and III, 1878, pp. 11-15; Elliot, *ibid.*, II, 1877, pp. 97-102.) The second and more important difficulty, and one which still exists, has to do with the actual identification of individual birds, either in the field or as specimens in hand.

Many observers, some of whom are careful students, have applied one or the other of the two names (*rufus* and *alleni*) to individual birds seen in the field when as a matter of fact with specimens in hand close scrutiny is required to name them correctly. There are already in print numerous records based upon specimens taken which upon re-examination of the material prove to be in error. How then can sight identifications be made with any expectation of accuracy? The regular ascription of *alleni* as a bird of the Pacific Northwest and of *rufus* as a breeding bird in central California are cases in point. Mistakes of the sort indicated will continue to occur so long as attempts are made to identify these closely related species on any basis save that of carefully collected specimens. Breeding records in critical territory should be based upon brooding birds collected with the nests and eggs. The well known but little appreciated fact that males have no part in the nesting duties makes it necessary to demand that only females be taken as the basis for such breeding records.

The specific differences between these two species are slight yet positive. The principal ones may be summarized as follows:

Alleni: Lateral rectrix on each side not more than 2 mm. wide; male with next to innermost rectrix on each side unnotched and back chiefly metallic green.

Rufus: Lateral rectrix on each side 3 mm. or more in width; male with next to middle rectrix on each side notched near tip and back chiefly cinnamon-rufous.

Thus the identification of females rests solely upon correct measurement of the outermost tail feather. There is a difference in the distribution of black and rufous on the tail of females appreciable upon comparing representatives of the two, but this does not lend itself to being described in such a way as to prove of value when but a single example is at hand.

My attention was drawn to study this problem by endeavoring to ascertain the basis for the statement in the A. O. U. Check-list (ed. 3, 1910) that *Selasphorus alleni* "breeds from southern British Columbia to northern Lower California." The literature failed to give conclusive evidence, and then correspondence was resorted to, with the net result that I can find but two positive

records for *alleni* north of California, both of which I believe represent casual occurrences.

Henshaw (Bull. Nuttall Orn. Club, III, 1878, p. 14) mentions in particular a green-backed specimen from Washington referable to his *S. alleni*. This was no. 6059 U. S. National Museum which, according to Baird (Rept. Pac. R. R. Surv., IX, 1858, p. 134), was collected April 26, 1856, at Ft. Steilacoom, Washington. Ridgway (Bull. U. S. Nat. Mus., 50, pt. V, 1911, p. 611) makes particular mention of this individual in the synonymy of *Selasphorus alleni*. Dr. C. W. Richmond, Associate Curator of Birds, U. S. National Museum, at my request made a search for this skin in the National collection, but could not find it. Upon turning to the Register of Specimens he discovered that the line devoted to the specimen bears the entry "Destroyed, Aug., 1885." However, the fact that Mr. Henshaw, the original describer of the Allen Hummingbird, and Mr. Ridgway, who has given much attention to hummingbirds, both mention this particular specimen makes the record unusually dependable.

It remains to mention the only specimen of *alleni* known to be extant for the territory north of California. This is an adult male taken by Mr. S. F. Rathbun at Seattle, Washington, May 27, 1894, and at present no. 121 of his collection. Mr. Rathbun kindly forwarded the specimen to me for examination. The outer rectrix on each side is only 1.7 mm. at the widest part, the next to innermost pair of rectrices have no indication of notching and the back is chiefly green.

It is worth while to set forth the results obtained by a critical examination of the literature and by correspondence with the authors concerned in the previous records of *Selasphorus alleni* for the Northwest.

Brooks in 1903 recorded *alleni* as breeding near 158-mile House, Caribou District, British Columbia (Auk, XX, 1903, p. 282); but later, after examining specimens of undoubted *alleni* at Berkeley, recalled his record (Auk, XXIX, 1912, p. 253), concluding that he had never seen the species in the Province. Fannin's "Check List of British Columbia Birds" (1891) I have not been able to examine, but Ridgway (*loc. cit.*) summarizes Fannin's statement of the range of *alleni* as "e. Cascade and Rocky Mt. districts." Kermode, in a list published in 1909 (Provincial Museum [Report], 1909, p. 52) uses substantially the same language as Fannin in referring to *alleni*, having evidently followed Fannin. Presumably some of the specimens of *rufus* in the Provincial Museum were earlier referred to *alleni*. A recent letter from Mr. Kermode states that the Museum contains numerous specimens of *rufus*, including some determined by Mr. Oberholser, but no *alleni*. The statements of Fannin and Brooks were evidently the basis for the statements in the A. O. U. Check-list and in Ridgway (1911) that *alleni* was a bird of British Columbia. Mr. P. A. Taverner has informed me by letter that Spreadborough's records of *S. alleni* for British Columbia given by Macoun (Cat. Canadian Birds, 1909, p. 365) are erroneous, being based upon specimens of *rufus*.

The numerous records of *S. alleni* from Washington prove all but two to have been based upon faulty data. Edson (Auk, XXV, 1908, p. 434) recorded the species as a "frequent resident" at Bellingham Bay. Several specimens in his collection, earlier labelled *alleni*, upon re-examination by Mr. Edson and later by myself, prove to be *rufus*. He states in a letter that he has seen *rufus* as early as February, though they do not usually appear until well along in March, and sometimes in April. "Resident" was undoubtedly used earlier

to indicate summer occurrence, not continuance through the winter. Rathbun (Auk, xix, 1902, p. 135) says of *alleni* "rather rare summer resident and undoubtedly breeds." The one bird mentioned above substantiates this record only so far as a single occurrence in summer is concerned. The Ft. Steilacoom record has already been discussed.

Bendire (Life Hist. N. Amer. Birds, II, 1895, p. 217) on the statement of R. H. Lawrence reports that a pair with young, taken near Tacoma, Washington, were exhibited by the Edwards brothers, local taxidermists, in October, 1891. Bowles has twice recorded *alleni* as occurring at Tacoma (Condor, II, 1900, pp. 91-92; Auk, xxIII, 1906, p. 144) but in a recent letter states that he does not know of an authentic record for the state. The mounted group he considers were *rufus*. Lawrence (Auk, ix, 1892, p. 44) gave *alleni* as common at Grays Harbor, but as he distinctly states that he "had a good view of one" on one occasion and does not mention the taking of specimens, the occurrence is not proved. Dawson (Birds of Washington, 1909, p. 400) makes mention of specimens in the Edson and Cantwell collections; the former have already been shown to be *rufus*. Mr. Cantwell writes that he has been on the lookout for *alleni* for years without obtaining it, and that he believes the specimen which he had earlier, and which is mentioned by Dawson, was gotten by exchange from California.

No authentic record for the Allen Hummingbird in Oregon has come to attention. Woodcock (Oregon Agric. Exp. Sta. Bull. 68, 1902, p. 52) on the authority of two of his correspondents lists *alleni* from Dayton and Elkton but no mention is made of specimens. Dr. John Bovard tells me that there are no Oregon taken specimens of *alleni* in the collection of the University of Oregon. At my request Mr. W. D. Strong recently examined the collection of the Oregon Fish and Game Commission in Portland without finding Oregon specimens, and Mr. Stanley G. Jewett states that he has never found the species in Oregon.

In the light of information set forth above it would seem proper to list *Selasphorus alleni* as of but casual occurrence north of the northern boundary of California. Oregon has not been explored so fully as California and it may be that the species invades it locally. The appearance of this Hummingbird in Washington is but casual and its occurrence in British Columbia yet remains to be demonstrated.

Berkeley, California, June 18, 1921.